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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/755,053	01/08/2001	Christophe Bertez	S.5229 US - OP/MM	6760

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EXAMINER
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JOHNSON, JONATHAN J

ART UNIT	PAPER NUMBER
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1725

DATE MAILED: 10/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/755,053	<b>Applicant(s)</b> BERTEZ ET AL.	
	<b>Examiner</b> Jonathan Johnson	<b>Art Unit</b> 1725	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 September 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,5-9,11,12,14,15 and 22-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-9,11,12,14,15 and 22-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Reply Brief***

In view of the reply brief filed on 9-28-04, PROSECUTION IS HEREBY REOPENED.

A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2, 5-6, 8, 11-12, 14-15 and 22-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nielsen (6,175,096) in view of Rolf et al. (WO 96/23624). With respect to Claims 1, 5, 12, 14, 22 and 25-27, Nielson teaches a method of cutting a workpiece made of

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stainless steel (Column 1, Lines 25-35 and column 2, Lines 50-56) by the use of at least one transparent or reflecting optical means for focusing at least one laser beam in which the optical means is the multifocus type (Figure 1a and Item 1a). Nielson teaches the use of an assist gas using nitrogen but does not specifically teach an oxygen/nitrogen mixture. Rolf et al. teach a laser beam method of cutting stainless steel where the assist gas is an oxygen nitrogen mixture containing the claimed range and no other gas than the assist gas is supplied to the nozzle (Page 5, Lines 3-9 and Page 2, Lines 25-30). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the gas of Nielson to utilize the assist gas of Rolf et al. in order to increase the laser cutting speed (see Rolf et al. Page 2, Lines 25-30).

With respect to Claims 2, 11, and 23-24 the teachings of Nielson and Rolf et al. are the same as relied upon in the rejection of Claim 1. Nielsen teaches the multifocus optical means is a bifocal lens (Claim 3).

With respect to Claims 6, 15, 28 and 29, the teachings of Nielson and Rolf et al. are the same as relied upon in the rejection of Claim 1. Nielsen teaches the optical means is arranged so as to obtain at least one focusing point positioned near the upper surface of the workpiece to be cut (Figure 1a, item f1) and at least one second focusing point positioned near the lower surface of the workpiece to be cut and in the thickness of the latter (Figure 1a, item f2) wherein the first focusing point is positioned so as to coincide with the upper surface (Figure 1a, f1).

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With respect to Claim 8, the teachings of Nielson and Rolf et al. are the same as relied upon in the rejection of Claim 1. Nielsen teaches the workpiece is chosen from plates (Claim 1).

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nielsen (6,175,096) and Rolf et al. (WO 96/23624) as applied to claim 1 above and further in view of McNeill (4,781,907). McNeill teaches a nitrogen/ oxygen mixture obtained from air treated by a membrane system (Column 1, Line 40 through Column 2, Line 65). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the assist gas of Nielsen and Nagata et al. to utilize the membrane system in order to achieve a relatively pure nitrogen stream (see McNeil Column 1, Lines 40-47).

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nielsen (6,175,096) and Rolf et al. (WO 96/23624) as applied to Claim 1 above and further in view of Sullivan et al. (3,597,578). Sullivan et al. teach desirability of laser cutting workpieces having a thickness up to 0.10 inch thickness (col. 4, ll. 60-65). Nielsen teach a laser cutting a workpiece having a thickness of 15 mm or more (col. 1, ll. 25-40). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combined process of Nielsen and Rolf et al. to utilize stacking the 0.10 inch workpieces to result in a thickness of 15 mm or more in order to increase productivity by shorting the number of steps in manufacturing (see Nielsen, col. 1, ll. 20-55).

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Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nielsen (6,175,096) and Rolf et al. (WO 96/23624) as applied to Claim 1 above and further in view of Sullivan et al. (3,597,578). Sullivan et al. teach desirability of laser cutting workpieces having a thickness up to 0.10 inch thickness (col. 4, ll. 60-65). Nielsen teach a laser cutting a workpiece having a thickness of 15 mm or more (col. 1, ll. 25-40). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combined process of Nielsen and Rolf et al. to utilize stacking the 0.10 inch workpieces to result in a thickness of 15 mm or more in order to increase productivity by shorting the number of steps in manufacturing (see Nielsen, col. 1, ll. 20-55).

### *Response to Arguments*

Applicant argues that the use of the term "or" in Nielsen at col. 2, l. 55 clearly teaches that oxygen and nitrogen as an assist gas are alternatives to one another. The examiner agrees. Applicant goes on to argue that it would not have been obvious to combine Nielsen and Rolf et al. because Nielsen teaches the use of only oxygen or nitrogen as an assist gas. The examiner disagrees. A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). In the instant case, while the examiner agrees that Nielsen teaches the use of nitrogen and oxygen for different materials, Nielsen also teaches that the gases were "typical" of gases that could be used in a laser cutting process. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. In re

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Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231

USPQ 375 (Fed. Cir. 1986). In the instant case, there is no teaching in Nielsen that only oxygen or nitrogen gas could be used in carrying out his invention. In any event, the examiner notes that the rejection is not based solely on Nielsen, but on Nielsen in view of Rolf et al. That is, the examiner relies on Rolf to teach the nitrogen/oxygen gas mixture. As stated in the previous office action, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the gas of Nielson to utilize the assist gas of Rolf et al. in order to increase the laser cutting speed (see Rolf et al. Page 2, Lines 25-30).

### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Johnson whose telephone number is 571-272-1177.

The examiner can normally be reached on M-Th 7:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on 571-272-1171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jonathan Johnson  
Examiner  
Art Unit 1725

jj